Chapter 14

Public Health and Environmental Hazards

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Chapter 14

Public Health and Environmental Hazards

This chapter examines the proposed action's potential effects related to public health and safety and environmental hazards. It focuses on issues related to the handling and use of hazardous materials, and the potential for inadvertent spills or releases of hazardous materials. Public health and safety analyses commonly also address a proposed undertaking's potential to increase public exposure to disease or risk of contracting disease, and potential effects on drinking water quality. However, the proposed action would not alter the potential for exposure to any infectious disease, nor would it affect drinking water quality or treatment, so these topics were not addressed. Effects related to flood hazards and flood safety are discussed in Chapter 8 (*Water Resources*).

Key sources of information used in the preparation of this chapter include the following.

- The California Department of Toxic Substances' "Cortese List" inventory of potentially contaminated sites.
- The U.S. Environmental Protection Agency's National Priorities List of hazardous waste sites identified for remediation under the federal Superfund program.

Affected Environment

Regulatory Framework

The California Department of Toxic Substances Control (DTSC) defines a *hazardous material* as one that poses a significant present or potential hazard to human health and safety or the environment if released because of its quantity, concentration, or physical or chemical characteristics (26 California Code of Regulations [CCR] 25501). Common hazardous materials include petroleum hydrocarbons, pesticides, volatile organic chemicals (VOCs), and certain metals.

Various federal and state agencies exercise regulatory authority over the use, generation, transport, and disposal of hazardous substances. The primary federal regulatory agency is the EPA. The primary California state agency is the California Environmental Protection Agency (Cal-EPA), which may delegate

enforcement authority to local agencies with which it has agreements. Federal regulations applicable to hazardous substances are contained primarily in the Code of Federal Regulations (CFR) Titles 29 (*Labor*), 40 (*Protection of Environment*), and 49 (*Transportation*). State regulations are contained in CCR Title 13 (*Motor Vehicles*), Title 19 (*Public Safety*), Title 22 (*Social Security*), and Title 26 (*Toxics*).

The following sections contain additional information on specific laws and regulations pertaining to hazardous materials management.

Federal Regulations

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also called the Superfund Act) (42 U.S. Government Code [USC] Sec. 9601 *et seq*.) is intended to protect the public and the environment from the effects of prior hazardous waste disposal and new hazardous material spills. Under CERCLA, EPA has the authority to seek the parties responsible for hazardous materials releases and to assure their cooperation in site remediation. CERCLA also provides federal funding (the "Superfund") for the remediation of hazardous materials contamination. The Superfund Amendments and Reauthorization Act (SARA) of 1986 (Public Law 99-499) amends some provisions of CERCLA and provides for a Community Right-to-Know program.

EPA has the authority to implement CERCLA in all 50 states and all United States territories, using a variety of enforcement tools, including orders, consent decrees, and other small party settlements. The identification, monitoring, and remediation of Superfund sites are usually coordinated by state environmental protection and/or waste management agencies. When potentially responsible parties cannot be identified or located, or when responsible parties fail to act, EPA has the authority to remediate abandoned and/or historical sites where hazardous materials contamination is known to exist and to pose a human health hazard.

Pursuant to CERCLA, EPA maintains a National Priority List (NPL) of uncontrolled or abandoned hazardous waste sites identified for priority remediation under the Superfund program. Sites are identified for listing on the basis of the EPA's hazard ranking system. Sites may also be placed on the NPL if they meet the following requirements.

- The Agency for Toxic Substances and Disease Registry (ATSDR) of the U.S. Public Health Service has issued a health advisory that recommends removing people from the site.
- EPA has determined that the site poses a significant threat to public health.

- It will be more cost-effective for EPA to use its remedial authority than its emergency removal authority to respond to the hazard posed by the site.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) (42 USC Sec. 6901 *et seq*.) was enacted in 1976 as an amendment to the Solid Waste Disposal Act to address the nationwide generation of municipal and industrial solid waste. RCRA gives EPA authority to control the generation, transportation, treatment, storage and disposal of hazardous waste, including underground storage tanks storing hazardous substances. RCRA also establishes a framework for the management of nonhazardous wastes. RCRA addresses only active and future facilities; it does not address abandoned or historical sites, which are covered by CERCLA (see preceding section).

RCRA was updated in 1984 by the passage of the federal Hazardous and Solid Waste Amendments (HSWA), which require the gradual phasing out of land disposal of wastes. HSWA also increased the EPA's enforcement authority and established more stringent hazardous waste management standards, including a comprehensive underground storage tank program.

Federal Insecticide, Fungicide, and Rodenticide Act

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) (7 USC 136 *et seq*.) was originally passed in 1947. It has been amended several times, most extensively in 1972, and most recently by the Food Quality Protection Act of 1996. The purpose of FIFRA is to establish federal jurisdiction over the distribution, sale, and use of pesticides[1]. It also gives EPA the authority to study the effects of pesticide use. Other key provisions of FIFRA require pesticide applicators to pass a licensing examination for status as "qualified applicators"; create a review and registration process for new pesticide products; and ensure thorough and understandable labeling that includes instructions for use (ChemAlliance 2004, U.S. Environmental Protection Agency 2004a).

State Regulations

EPA has granted the states primary oversight responsibility to administer and enforce hazardous waste management programs. In addition, California state regulations, which are equal to or more stringent than federal regulations, require planning and management to ensure that hazardous wastes are handled, stored,

[1] As defined by the EPA, *pesticide* is a broad, encompassing term referring to any substance used to kill, repel, control, or prevent infestation by any type of pest, including insects, animals, nuisance plants (weeds), fungi, molds, bacteria, and viruses. Consequently, FIFRA governs herbicides as well as insecticides, rodenticides, and other types of common poisons.

and disposed of properly to reduce risks to human health and the environment. Several key state laws pertaining to hazardous wastes are discussed below.

Hazardous Materials Release Response Plans and Inventory Act of 1985

The Hazardous Materials Release Response Plans and Inventory Act, also known as the Business Plan Act, requires businesses using hazardous materials to prepare a hazardous materials business plan that describes their facilities, inventories, emergency response plans, and training programs. Under the Business Plan Act, *hazardous materials* are defined as raw or unused materials that are part of a process or manufacturing step. They are not considered hazardous waste, although the health concerns pertaining to the release or inappropriate disposal of these materials are similar to those for hazardous waste. The Business Plan Act also defines *acutely hazardous materials* as referring to certain chemicals specifically listed in CFR Title 40; about 400 chemicals that are of special concern to emergency response planners are included in this inventory.

Hazardous Waste Control Act

The Hazardous Waste Control Act created the state hazardous waste management program, which is similar to, but more stringent than, the federal program under RCRA. The Hazardous Waste Control Act is implemented by regulations contained in 26 CCR, which describes the key aspects of hazardous waste management, including: identification and classification; sources; transport; design and permitting of recycling, treatment, storage, and disposal facilities; treatment standards; operation of facilities, including staff training; closure of facilities; and liability issues.

Regulations in 26 CCR list more than 800 materials that may be hazardous and establish criteria for their identification, packaging, and disposal. Under the Hazardous Waste Control Act and 26 CCR, hazardous waste generators must complete a manifest that accompanies the waste from the generator to the transporter to the ultimate disposal location. Copies of the manifest must be filed with the state's DTSC.

Emergency Services Act

Under the Emergency Services Act, the State of California developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies. Rapid response to incidents involving hazardous materials or hazardous waste is an important part of the plan, which is administered by the California Office of Emergency Services (OES). This office coordinates the responses of other agencies, including the EPA, the California

Highway Patrol, the nine RWQCBs, the various air quality management districts, and county disaster response offices.

Other State Laws and Regulations

Additional state regulations that affect hazardous waste management include

- the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65), which requires labeling of substances known or suspected by the state to cause cancer; and
- California Government Code Section 65962.5, which requires the Office of Permit Assistance to compile a list of potentially contaminated sites in the state. DTSC maintains this list, which is called the Cortese List. The public can access this list online at <http://www.dtsc.ca.gov/database/Calsites/Cortese_List.cfm>.

Local Regulations

The regulation of hazardous materials at the local level is limited to standards, procedures, and policies that relate to siting, construction, and use or operation of businesses, farms, and residences within the jurisdiction. Establishment of standards, and transport of hazardous materials and wastes from one location to another is regulated by the federal and state governments (see *Hazardous Waste Control Act* above). However, Counties are commonly responsible for implementing state standards authorized under Section 6.11 of the California Health and Safety Code. This may be accomplished by a combination of general plan policies and local ordinances and regulations. In addition, each County's Office of Emergency Services is responsible for planning emergency response actions to hazardous material incidents. Area response plans incorporate hazardous materials inventory data, training for emergency responses, and evacuation planning information.

Existing Conditions

As discussed in Chapter 3 (*Land Use and Planning*), the action area has supported, and continues to support, a broad range of land uses that require the use of hazardous or potentially hazardous materials, including agriculture; industry and manufacturing; defense-related activities; rail and highway corridors; highway alignments; and urban, suburban, and rural development. All of these uses carry some potential for spills and releases of hazardous substances. Contaminants associated with these uses include a variety of fuels and other petroleum distillates; pesticides, fertilizers, and other agricultural chemicals; lead; radioactivity; and volatile and semivolatile organic chemicals (VOCs and SVOCs).

As of the date of preparation of this EIS/EIR, more than 7,000 sites with confirmed subsurface releases of hazardous substances have been identified (Central Valley Regional Water Quality Control Board 1998), and additional contamination associated with surface use or spillage of hazardous substances is also likely present. Table 14-1 presents an inventory of sites in the nine action area counties that have sufficient contamination to qualify them for inclusion in the state's Cortese database and/or the federal NPL. Depending on local land use histories, other sites may also have some degree of unrecognized or unlisted contamination.

Environmental Consequences and Mitigation Strategies

Methodology for Impact Analysis

Effects related to public health and safety and environmental hazards were analyzed qualitatively, based on professional judgment in light of current best practices and the nature of the activities that would be enabled by the proposed action.

Analysis focused on the potential for public and environmental exposure to hazardous materials as a result of PG&E's O&M and minor construction activities. Three primary mechanisms for exposure were considered: improper handling or transport; reasonably foreseeable but inadvertent spills or releases; and ground disturbance on sites with known and unknown contamination. Analysis considered potential effects on workers, the general public, and the environment.

Significance Criteria

For the purposes of this analysis, an impact was considered to be significant and to require mitigation if it would result in

- a substantial hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials,
- a substantial hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials to the environment,
- new construction or substantial ground disturbance on a site included on a list of hazardous materials sites compiled pursuant to California Government Code 65962.5 or CERCLA,
- interference with or impedance of an adopted emergency response plan, or
- interference with emergency vehicle access or increased response times.

Table 14-1. Known Hazardous Materials Sites in Action Area Counties

City	Address	ZIP	Site Name	Listing
Fresno County				
COALINGA	20 MILES NW OF COALINGA-LOS GATOS CK RD	93210	ATLAS ASBESTOS MINE	Cortese, NPL
COALINGA	AREA SE OF LUCILLE AVENUE & HWY 198	93210	CITY OF COALINGA ASBESTOS SITE	Cortese, NPL
DEL REY	5404 SOUTH DEL REY AVENUE	93616	H S MANN METAL WASTE COMPANY	Cortese
FIREBAUGH	915 TENTH STREET	93622	TRI-AIR, INCORPORATED	Cortese
FIVE POINTS	21817 SOUTH COALINGA ROAD	93624	BRITZ FERTILIZERS, INC - FIVE POINTS	Cortese
FRESNO	1131 G STREET	93706	PG&E G STREET SUBSTATION	Cortese
FRESNO	1403 EAST JENSEN AVENUE	93706	FRESNO BATTERY EXCHANGE	Cortese
FRESNO	2494 SOUTH RAILROAD AVENUE, P.O. BOX 164	93707	WEIR FLOWAY INC.	Cortese
FRESNO	2501 SOUTH SUNLAND AVENUE	93725	FMC CORPORATION - FRESNO	Cortese
FRESNO	2510 SOUTH EAST AVENUE	93717	FORMER VALLEY FOUNDRY AND MACHINE WORKS,	Cortese
FRESNO	2940 SOUTH ELM AVENUE	93706	COMMERCIAL ELECTROPLATERS	Cortese
FRESNO	3090 E CHURCH AVE	93721	FORMER BURLINGTON NORTHERN SANTA FE ICE	Cortese
FRESNO	4627 NORTH BENDEL AVENUE	93722	FRESNO CHROME PLATING, INC	Cortese
FRESNO	7183 EAST MCKINLEY AVENUE	93727	T H AGRICULTURE & NUTRITION, L.L.C.	Cortese, NPL
FRESNO	CHURCH & FRUIT AVENUES	93706	CHURCH AND FRUIT JUNKYARD	Cortese
FRESNO	MCKINLEY AND CLOVIS AVENUES	93727	FRESNO AIR TERMINAL/OLD HAMMER FIELD	Cortese
FRESNO	NORTH OF CHURCH AVENUE AT SOUTH EAST AVE	93721	SOUTH FRESNO REGIONAL GROUNDWATER PLUME	Cortese
FRESNO	PINEDALE/N. FRESNO AREA	93650	PINEDALE AREA GROUNDWATER	Cortese
FRESNO	SW CORNER OF JENSEN & WEST AVENUES	93706	FRESNO SANITARY LANDFILL	Cortese, NPL
MALAGA	3265 SOUTH MAPLE AVENUE	93726	PURITY OIL SALES, INC	Cortese, NPL
PINEDALE	7209 NORTH INGRAM AVENUE	93650	VENDO COMPANY, THE	Cortese
PINEDALE	EPA ID#CAD980736284	93650	INDUSTRIAL WASTE PROCESSING	NPL
SELMA	1735 DOCKERY AVE & ADJOINING	93662	SELMA TREATING COMPANY	Cortese, NPL
SELMA	2336 CHANDLER STREET	93662	SELMA ELECTROPLATING	Cortese
SELMA	BLOCK: NORTH, SHERMAN, SYLVIA, YOUNG STREET	93662	PG&E MANUFACTURED GAS PLANT SQ-FK-SEL	Cortese
Kern County				
ARVIN	600 S DERBY ST	93203	BROWN AND BRYANT INC ARVIN FACILITY	Cortese, NPL
BAKERSFIELD	3228 GIBSON ST	93308	ASSURED TRANSPORTATION SITE	Cortese
BAKERSFIELD	340 DANIELS LN	93307	BENHAM AND JOHNSON	Cortese
BAKERSFIELD	3930 GILMORE AVENUE	93308	SAN JOAQUIN DRUM COMPANY	Cortese
BAKERSFIELD	600 SOUTH UNION AVENUE	93307	K & D SALVAGE	Cortese
BAKERSFIELD	GOLDEN STATE HWY & SEVENTH STANDARD RD	93312	BAKERSFIELD AG-CHEM	Cortese
BAKERSFIELD	ROUND MOUNTAIN ROAD	93301	ENVIRONMENTAL PROTECTION CORP-EASTSIDE D	Cortese
EDISON	430 PEPPER DRIVE	93220	J R SIMPLOT, EDISON (POND AREA)	Cortese
EDISON	430 PEPPER DRIVE	93220	J R SIMPLOT, EDISON (CANOPY AREA)	Cortese

City	Address	ZIP	Site Name	Listing
EDWARDS	470 SQ MI; 60 MI NE OF LOS ANGELES, CA	93523	EDWARDS AIR FORCE BASE	Cortese, NPL
MOJAVE	11601 UNITED STREET	93501	PRODUCTS RESEARCH & CHEMICAL CORP	Cortese
MOJAVE	11847 UNITED STREET	93501	COMMODITY REFINING EXCHANGE	Cortese
MOJAVE	12403 UNITED STREET	93501	UNITED METAL RECOVERY	Cortese
MOJAVE	12901 UNITED ROAD	93501	PURDY COMPANY	Cortese
MOJAVE	BACK LOT AT 11847 UNITED STREET	93501	SILVER QUEEN JUNKYARD	Cortese
MOJAVE	UNITED STREET & REED ROAD	93501	MOBILE SMELTING	Cortese
RIDGECREST	950 SQ MI; 120 MI NE OF LOS ANGELES, CA	93555	CHINA LAKE NAVAL AIR WEAPONS STATION	Cortese
ROSAMOND	1753 SIERRA HIGHWAY	93560	JOHN ALEXANDER RESEARCH INC	Cortese
ROSAMOND	2001 15TH STREET, WEST	93560	OSAGE INDUSTRIES, 15TH STREET	Cortese
ROSAMOND	2021 WEST 15TH STREET	93560	S R KILBY PROPERTY	Cortese
ROSAMOND	3103 50TH STREET WEST	93560	3103 50TH STREET WEST	Cortese
ROSAMOND	60TH STREET WEST T9N,R13W,S10 SE CORNER	93560	OSAGE INDUSTRIES, 60TH STREET WEST	Cortese
ROSAMOND	AVENUE A 1-1/2 MILE EAST HIGHWAY 14	93560	AVENUE A UNAUTHORIZED DISPOSAL SITE	Cortese
ROSAMOND	INTERSECTION OF MARIE AVE & W 15TH ST	93560	GROSSI/CALANDRI PROPERTY	Cortese
SHAFTER	135 COMMERCIAL DRIVE	93263	BROWN AND BRYANT - SHAFTER FACILITY	Cortese
SHAFTER	LERDO HIGHWAY AT HIGHWAY 99	93263	SHAFTER AIRPORT	Cortese
Kings County				
CORCORAN	6991 NEVADA AVENUE	93212	PUREGRO-CORCORAN	Cortese
LEMOORE	39,823 ACRES; 35 MI SOUTH OF FRESNO, CA	93245	LEMOORE NAS	Cortese
Madera County				
MADERA	11272 ROAD 32	93639	MACGILLIS AND GIBBS	Cortese
MADERA	BLOCK OF: 9TH, CLINTON, E STREET & ALLEY	93637	PG&E MANUFACTURED GAS PLANT SQ-YO-MAD	Cortese
Merced County				
ATWATER	2,777 ACRES; 5 MI NW OF MERCED, CA	95342	CASTLE AIR FORCE BASE	Cortese, NPL
DOS PALOS	7657 AZUSA AVE	93620	CENTRAL VALLEY FERTILIZER CO, INC (2)	Cortese
MERCED	BLOCK OF: 14TH, 15TH, L AND M STREETS	95340	PG&E MANUFACTURED GAS PLANT SQ-VO-MER	Cortese
San Joaquin County				
LATHROP	2715 E LOUISE AVE	95330	OXYCHEM-LATHROP	Cortese
LATHROP	724 ACRES; 60 MI EA OF SAN FRANCISCO, CA	95331	SHARPE DEFENSE DEPOT SAN JOAQUIN	Cortese, NPL
LODI	110 E. TURNER ROAD	95240	LUSTRE-CAL NAMEPLATE CORP	Cortese
LODI	17 S CHURCH ST	95240	GUILD CLEANERS	Cortese
LODI	40 NORTH MAIN STREET	95240	BUSY BEE LAUNDRY	Cortese
LODI	APPROX 70 ACRES OF CHURCH AND WALNUT STR	95240	LODI CENTRAL PLUME AREA	Cortese
STOCKTON	1,459 ACRE ISLAND; 40MI SE OF SACRAMENTO	95203	STOCKTON NAVAL COMMUNICATION STATION	Cortese
STOCKTON	1214 W. WASHINGTON STREET	95203	MCCORMICK & BAXTER CREOSOTING CO	Cortese, NPL

City	Address	ZIP	Site Name	Listing
STOCKTON	150 N SINCLAIR AVE	95215	MARLEY COOLING TOWER COMPANY	Cortese
STOCKTON	2201 W. WASHINGTON STREET	95201	STOCKTON, ROUGH AND READY ISLAND	Cortese
STOCKTON	540 WEST SCOTTS AVENUE	95203	ACME-STOCKTON GALVANIZING WORKS	Cortese
TRACY	25600 S CHRISMAN RD	95304	TRACY DEFENSE DEPOT SAN JOAQUIN	Cortese, NPL
TRACY	29425 S MACARTHUR DR	95377	TRACY TIRE FIRE	Cortese
TRACY	CORNER OF TRACY BLVD AND BEECHNUT AVE	95376	RENOWN HOMES	Cortese
TRACY	CORRAL HOLLOW ROAD	94550	LAWRENCE LIVERMORE NAT LAB 300(USDOE)	Cortese, NPL
TRACY	FRANKLIN AND ACACIA STREETS	95376	PG&E MANUFACTURED GAS PLANT SQ-SK-TRA	Cortese
Stanislaus County				
CROWS LANDING	1.5 MI NW OF CROWS LANDING; (T6S R8E)	95313	CROWS LANDING NAVAL AUXILIARY FIELD	Cortese
MODESTO	10TH AND L STREETS	95354	MODESTO CONVENTION CENTER	Cortese
MODESTO	3666 W SERVICE RD	95358	GALLO GLASS - SISK RANCH	Cortese
MODESTO	N OF HWY 132 & ADJ E BANK OF DRY CREEK	95353	GALLO GLASS-RAFFLE SITE	Cortese
MODESTO	NEAR MODESTO	95351	MODESTO GROUNDWATER CONTAMINATION	Cortese, NPL
OAKDALE	SOUTH OF J AND BRYAN, N OF RR TRACKS	95361	PG&E MANUFACTURED GAS PLANT SQ-ST-OKD	Cortese
RIVERBANK	5300 CLAUS ROAD	95367	RIVERBANK ARMY AMMUNITION DEPOT	Cortese, NPL
TURLOCK	2237 SOUTH GOLDEN STATE BLVD	95380	VALLEY WOOD PRESERVING, INC.	Cortese, NPL
WESTLEY	1/4 MILE WEST OF I-5	95387	WESTLEY TIRE FIRE	Cortese
Tulare County				
DINUBA	216 S O ST	93618	SO CAL GAS/DINUBA MGP	Cortese
OROSI	13133 AVENUE 416	93647	PARMENTER AND BRYAN	Cortese
PIXLEY	1494 SOUTH AIRPORT DRIVE	93256	HARMON FIELD	Cortese
PORTERVILLE	167 WEST POPLAR AVENUE	93257	BECKMAN INSTRUMENTS, PORTERVILLE PLANT	Cortese, NPL
TULARE	21636 RD 152	93274	CAM CHEMICALS	Cortese
VISALIA	2530 WEST GOSHEN	93219	KAWEAH CROP DUSTER-GREEN ACRES AIRPORT	Cortese
VISALIA	300 NORTH TIPTON STREET	93277	SO CAL GAS/VISALIA MGP	Cortese, NPL
VISALIA	432 BEN MADDOX WAY	93277	EDISON/VISALIA POLE YARD	Cortese
VISALIA	6941 AND 6707 WEST GOSHEN AVENUE	93291	GOSHEN AVENUE AND SHIRK ROAD SITE	Cortese

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Impacts and Mitigation Measures

Proposed Action

Impact PH1—Potential to create a hazard to the public or the environment through routine transport, use, or disposal of hazardous materials other than herbicides; potential for inadvertent spills or releases of hazardous materials other than herbicides. Many of the routine O&M activities enabled by the proposed action would entail the use of hazardous substances such as fuels and lubricants for vehicles and equipment; paints; solvents; and epoxies. Construction could require additional substances such as paving media.

Hazardous materials could be released in a variety of ways during O&M and minor construction activities. For example, vehicles could leak or spill fuel, brake fluid, and lubricants. Spills could also occur during fueling or servicing activities, or during delivery of fuels and other substances to work sites, with the potential to contaminate soil and surface- or groundwater, potentially resulting in toxic effects on vegetation, wildlife, workers, and the general public. Substances such as solvents, paints, and epoxy could pose similar concerns if accidentally released or improperly handled or disposed. Depending on the substance released and the magnitude of the release, this could represent a significant impact.

As described in Chapter 2 (see *Hazardous Materials Program* under *PG&E's Existing Environmental Programs and Practices*), PG&E complies with all applicable state and federal laws, regulations, and requirements pertaining to hazardous materials and hazardous wastes, and has an ongoing hazardous materials safety program that requires staff and contractors to follow BMPs such as

- fueling and servicing all vehicles offsite;
- to the extent practicable, avoiding or minimizing storage of hazardous substances such as paints, solvents, epoxies, etc., at the work site and in the staging area;
- storing any hazardous materials that must be kept on the work site in securely stored in closed containers located away from drainage courses, storm drains, and areas of stormwater infiltration;
- ensuring that maintenance and construction personnel have been trained in current procedures and best available technology (BAT) for spill prevention and cleanup of accidental spills;
- keeping a spill kit or kits at the work site at all times when hazardous materials are in use, and ensuring that all personnel know how to access and use the kit(s); and
- stopping work immediately in the event of a hazardous materials spill or release, and implementing appropriate cleanup and remediation measures to

protect terrestrial ecosystems, surface water quality and aquatic ecosystems, groundwater quality, and human health.

In addition, for activities with the potential to disturb an area in excess of 1 acre, the federal Clean Water Act requires the preparation of a Storm Water Pollution Prevention Plan (SWPPP) that includes a Spill Prevention and Response Plan (see Chapter 8, *Water Resources*). As described in Chapter 2 (see *Water Quality Protection Program* under *PG&E's Existing Environmental Programs and Practices*), the Spill Prevention and Response Plan must identify the hazardous materials to be used during construction; describe measures to prevent, control, and minimize the spillage of hazardous substances; describe transport, storage, and disposal procedures for these substances; and outline procedures to be followed in case of a spill. SWPPP components, including the Spill Prevention and Response Plan, are under the regulatory oversight of the Regional Water Quality Control Board with jurisdiction over the work site.

In light of PG&E's existing program of training and BMPs, and the additional protection provided by the SWPPP requirement, both of which would carry forward under the proposed action, **impacts related to the potential for improper handling, storage, or use of hazardous substances, and impacts related to the potential for inadvertent spills or releases of hazardous substances, are expected to be less than significant.**

Mitigation Measure—No mitigation is required.

Impact PH2—Potential to create a hazard to the public or the environment through routine transport, use, or disposal of herbicides; potential for inadvertent spills or releases of herbicides.[2] As discussed in Chapter 2, the California Public Utilities Commission (CPUC) requires stringent control of vegetation along electric transmission and distribution corridors to minimize the risk of fire, and PG&E—like many other entities with land management responsibility—routinely uses herbicides as part of their vegetation management program. If herbicides are improperly transported, handled, or disposed, or if they are spilled or released into the environment, they have the potential to result in substantial damage to local native vegetation, and could be toxic to wildlife and humans as well.

However, as discussed in Chapter 2 (see *Herbicide Use* under *Hazardous Materials Program* in *PG&E's Existing Environmental Programs and Practices*; also Table 2-5) PG&E has committed to ensure that herbicides are handled and applied only by state-licensed personnel—that is, persons holding a current QAL (Qualified Applicator Licensee) or QAC (Qualified Applicator Certificate Holder) registration from the California Department of Pesticide Regulation—and to ensure that all use of herbicides complies with FIFRA label requirements. These commitments are expected to greatly reduce the potential for improper

[2] Note that although herbicide use would not be covered under the proposed HCP, herbicides could be used in some of the activities enabled under the proposed action. Because herbicide use could represent an indirect outcome of the proposed action, it is analyzed in this document for completeness.

handling of herbicides. In addition, as described above and in Chapter 2, PG&E complies with all applicable state and federal laws, regulations, and requirements pertaining to hazardous materials and hazardous wastes, and has an ongoing hazardous materials safety program that requires staff and contractors to follow a comprehensive program of BMPs. For example, spill kits are to be kept at the project site whenever hazardous materials are in use and all personnel must know how to access and use the kit. Also, maintenance and construction personnel must be trained in current procedures, including best available technology (BAT), for spill prevention and cleanup of accidental spills. **With these measures in place, impacts related to the potential for improper transport, handling, or use of herbicides, and impacts related to the potential for inadvertent spills or releases of herbicides, are expected to be less than significant.**

Mitigation Measure—No mitigation is required.

Impact PH3—Potential for human or environmental exposure to hazardous materials as a result of ground disturbance on sites with known hazardous materials contamination. It is unlikely that PG&E would plan to construct new facilities on a site with known hazardous materials contamination, unless the site had already been fully remediated prior to construction. Because of the diversity and distribution of sites with known hazardous materials contamination in the action area, it is possible that O&M activities enabled by the proposed action would take place on contaminated sites, although PG&E minimizes such activities to the extent possible. PG&E policies and regulatory requirements dictate that only appropriately trained and qualified personnel work on sites with known contamination. Consequently, **human health and environmental effects related to ground disturbance on sites with known hazardous materials contamination are expected to be less that significant.**

Mitigation Measure—No mitigation is required.

Impact PH4—Potential to interfere with or impede the implementation of adopted emergency response plans; potential to interfere with emergency vehicle access or increase emergency services' response times. As discussed in Chapter 2 (see *Land Use and Planning Practices* under *PG&E's Existing Environmental Programs and Practices*), PG&E consults with local jurisdictions to ensure that their needs and concerns are considered as a part of the planning process. On the public safety front, this includes a commitment to ensure that PG&E's activities (many of which are essential for the provision of emergency response services) do not impede adopted emergency response plans. For instance, if lane closures must occur during the course of O&M or construction, local fire and police departments are notified in advance to allow the design of alternative emergency access and evacuation routes (see related discussion in Chapter 11, *Transportation and Circulation*). PG&E makes every effort to allow emergency service providers adequate lead time to ensure that emergency access and response times can be maintained during work periods. With this commitment in place, activities enabled by the proposed action are not expected result in measurable interference with or impedance of any adopted emergency response plan or emergency evacuation plan, to interfere with emergency vehicle

access, or to increase emergency services' response times substantially. **This impact is expected to be less than significant.**

Mitigation Measure—No mitigation is required.

Impact HC5—Potential handling of hazardous materials within 0.25 mile of an existing or planned school. PG&E's facilities are located throughout the action area, and include infrastructure that directly serves schools and their surrounding communities, so O&M activities must take place within 0.25 mile of existing schools in some cases. However, as discussed above and in Chapter 2 (see *Hazardous Materials Program* under *PG&E's Existing Environmental Programs and Practices*), PG&E complies with federal, state, and local hazardous material and pesticide handling regulations and requires its employees to implement a comprehensive program of hazardous materials BMPs. **Impacts related to use of hazardous materials in proximity to existing schools and planned school sites are thus expected to be less than significant.**

Mitigation Measure—No mitigation is required.

Alternative 1—HCP with Reduced Take

Alternative 1 would enable the same program of O&M and minor construction activities as that described for the proposed action, with minor differences specific to commitments for the protection of biological resources. Alternative 1 would be subject to the same regulatory requirements and would incorporate the same program of training and BMPs for hazardous materials handling identified in this EIS/EIR for the proposed action. Consequently, impacts related to hazardous materials and public health and safety would be essentially the same under Alternative 1 as those described for the proposed action.

Alternative 2—HCP with Enhanced Compensation

Alternative 2 would enable the same program of O&M and minor construction activities as that described for the proposed action. Differences between Alternative 2 and the proposed action would center on compensation ratios for habitat disturbed or lost (increased under Alternative 2 by comparison with the proposed action). Alternative 2 would be subject to the same regulatory requirements and would incorporate the same program of training and BMPs for hazardous materials handling identified in this EIS/EIR for the proposed action. As with Alternative 1, impacts related to hazardous materials and public health and safety would be essentially the same under Alternative 2 as those described for the proposed action.

Alternative 3—HCP with Reduced Number of Covered Species

Alternative 3 would enable the same program of O&M and minor construction activities as that described for the proposed action. The key difference between Alternative 3 and the proposed action would relate to the number of species covered under the Alternative 3 (reduced by comparison with the proposed HCP, as described in Chapter 2). Alternative 3 would be subject to the same regulatory requirements and would incorporate the same program of training and BMPs for hazardous materials handling identified in this EIS/EIR for the proposed action. As with Alternatives 1 and 2, impacts related to hazardous materials and public health and safety would be essentially the same under Alternative 3 as those described for the proposed action.

Alternative 4—No Action

Under the No Action Alternative, PG&E would continue its existing program of O&M and minor construction activities unchanged. No HCP would be implemented, and any habitat compensation needed would occur on a case-by-case, piecemeal basis. However, PG&E would still implement their standard methods and techniques for carrying out O&M activities, including the existing program of training and BMPs for hazardous materials handling. Therefore, impacts related to hazardous materials and public health and safety would be essentially the same under Alternative 4 as those described for the proposed action.

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